

BZT privat CETECOM GmbH

Radio Satellite Communication
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RSC11 issue test report consist of 16 Pages Page 1 (16)

Akkreditiertes Prüflaboratorium

DAR-Registriernummer:
TTI-P-066/94-70 vom 16.03.98

Test report no.: 2_0172-Aa/98
FCC 47 Part 15
T88

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1 General information

1.1 Notes

The test results of this test report relate exclusively to the item tested as specified in 1.5.

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1.2 Testing laboratory

BZT privat CETECOM GmbH

66117 Saarbrücken

Untertürkheimer Straße 6 - 10

Deutschland

Telefon : + 49 681 598 - 9000

Telefax : + 49 681 598 - 9075

E-mail :

Internet :

Accredited testing laboratory

DAR-registration number : TTI-P-G-066/94-70 vom 16.03.98

1.3 Details of applicant

Name : SHURE Brothers Europe GmbH

Street : Wannenäckerstr. 28

City : 74078 Heilbronn

Country : Germany

Telephone : +49 7131 7214 0

Telefax : +49 7131 7214 14

Contact : Wolfgang Bilz

Telephone : +49 7131 7214 34

1.4 Application details

Date of receipt of application : 06.04.98

Date of receipt of test item : 06.04.98

Date of test : 06.04.98

1.5 Test item

Type of equipment : Receiver

Type designation : T88

Manufacturer : SHURE Brothers Inc.

Street : 222 Hartrey Avenue

City : IL, 62020 Evanston

Country : USA

Serial number : --

Additional informations :

Frequency : 174.000 - 216.000 MHz

Number of channels : 2

Antenna : Telescopic antenna 40cm

Power supply : 12V D.C

Type of equipment : not applicable

Unmodulated carrier : not applicable

1.6 Test standards

CFR 47, Part 15

2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.

Technical responsibility for area of testing :

09.04.98	rsc8411	Berg	
Date	Section	Name	Signature

2.2 Testreport

TEST REPORT

Testreport no.: 2_0172-Aa/98

TEST REPORT REFERENCE

LIST OF MEASUREMENTS

PARAMETER TO BE MEASURED	PAGE
Receiver parameters	
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Test equipment listing	11
Photographs of the equipment	13

Equipment under test : T88

Ambient temperature : 23°C

Relative humidity : 44.0%

CONDUCTED EMISSIONS**FCC Rule 47 Part 15**

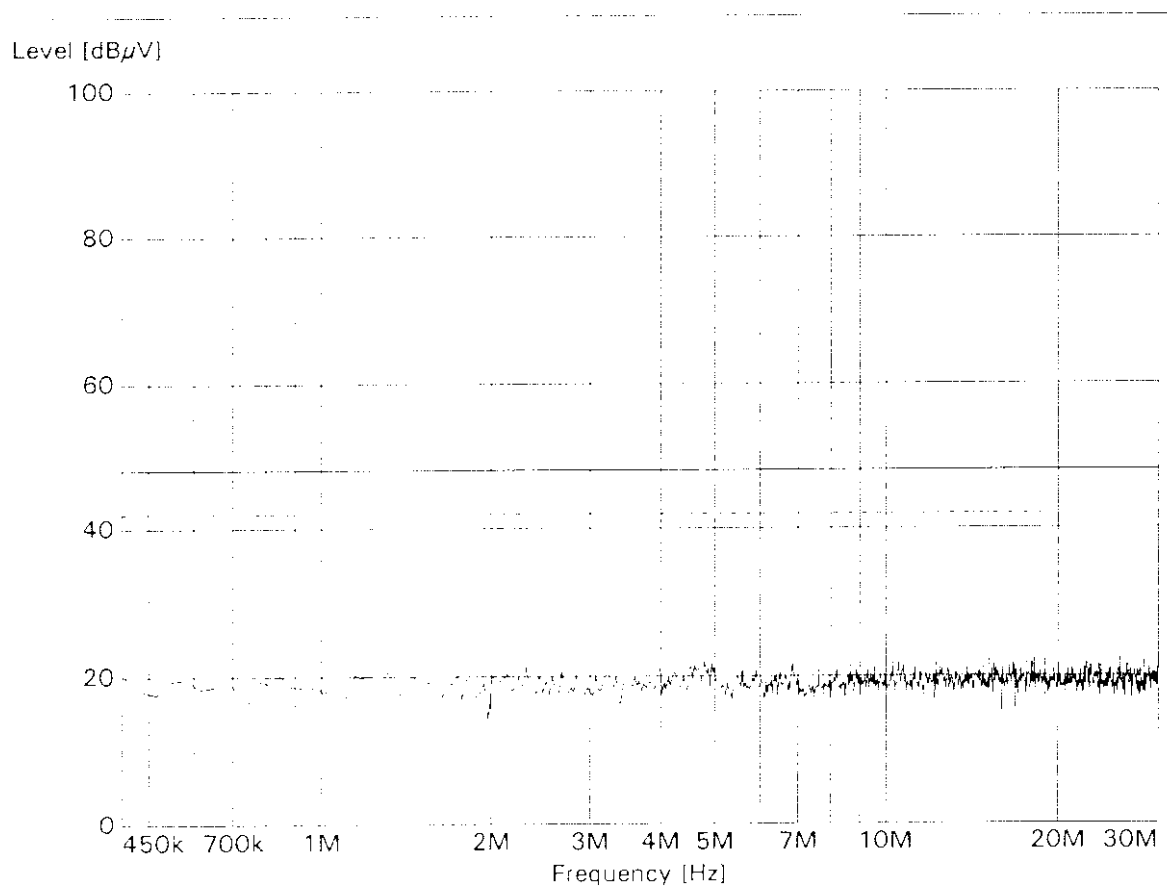
Technical specification : 15.107 (Revised as of October 1, 1991)

Limit

0.45 to 30 MHz

250 μ V / 47.96 dB μ V

Frequency : 178.800 / 183.600 MHz



REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : T88

Ambient temperature : 23°C

Relative humidity : 44.0%

CONDUCTED EMISSIONS**FCC Rule 47 Part 15**

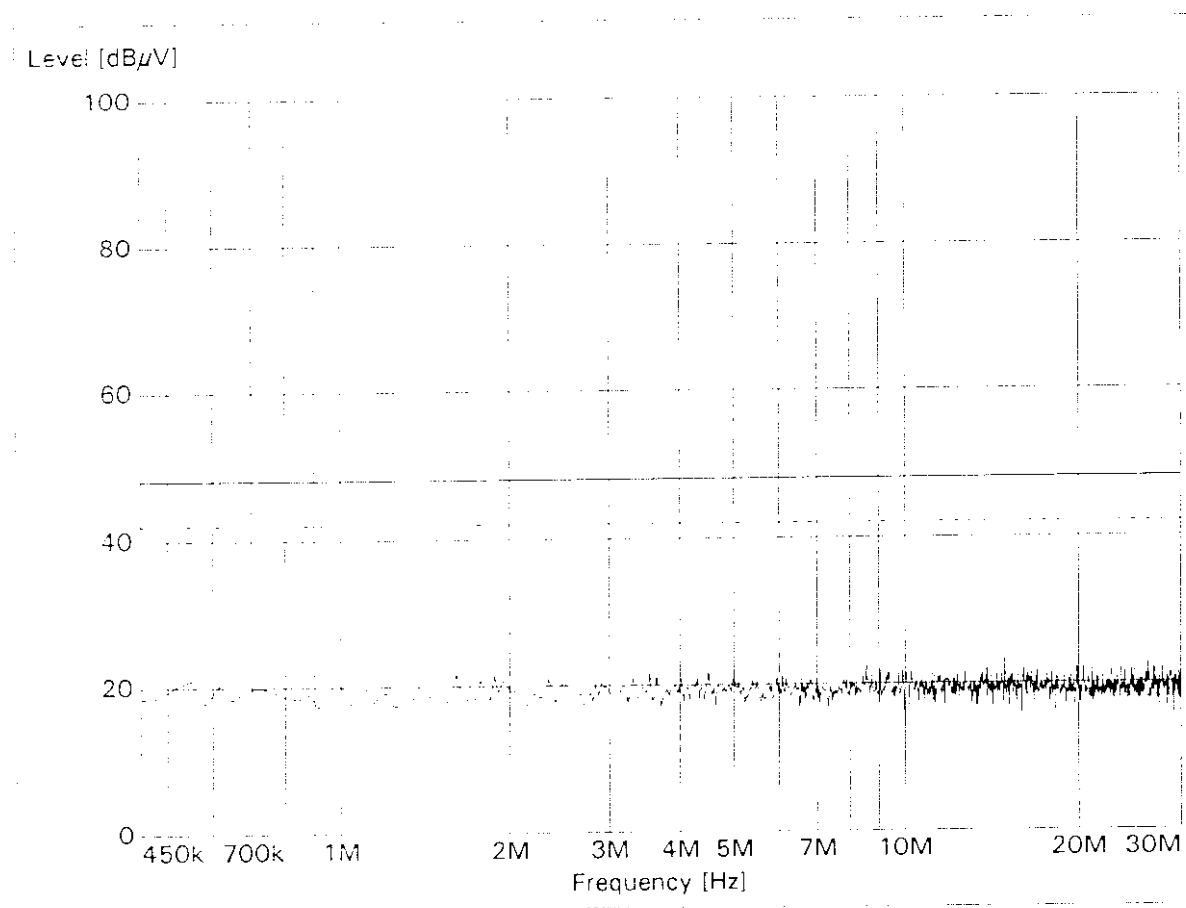
Technical specification : 15.107 (Revised as of October 1, 1991)

Limit

0.45 to 30 MHz

250 μ V / 47.96 dB μ V

Frequency : 192.200 / 208.200 MHz

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**

(for reference numbers see test equipment listing)

Equipment under test : T88

Ambient temperature : 23°C

Relative humidity : 44.0%

CONDUCTED EMISSIONS

FCC Rule 47 Part 15

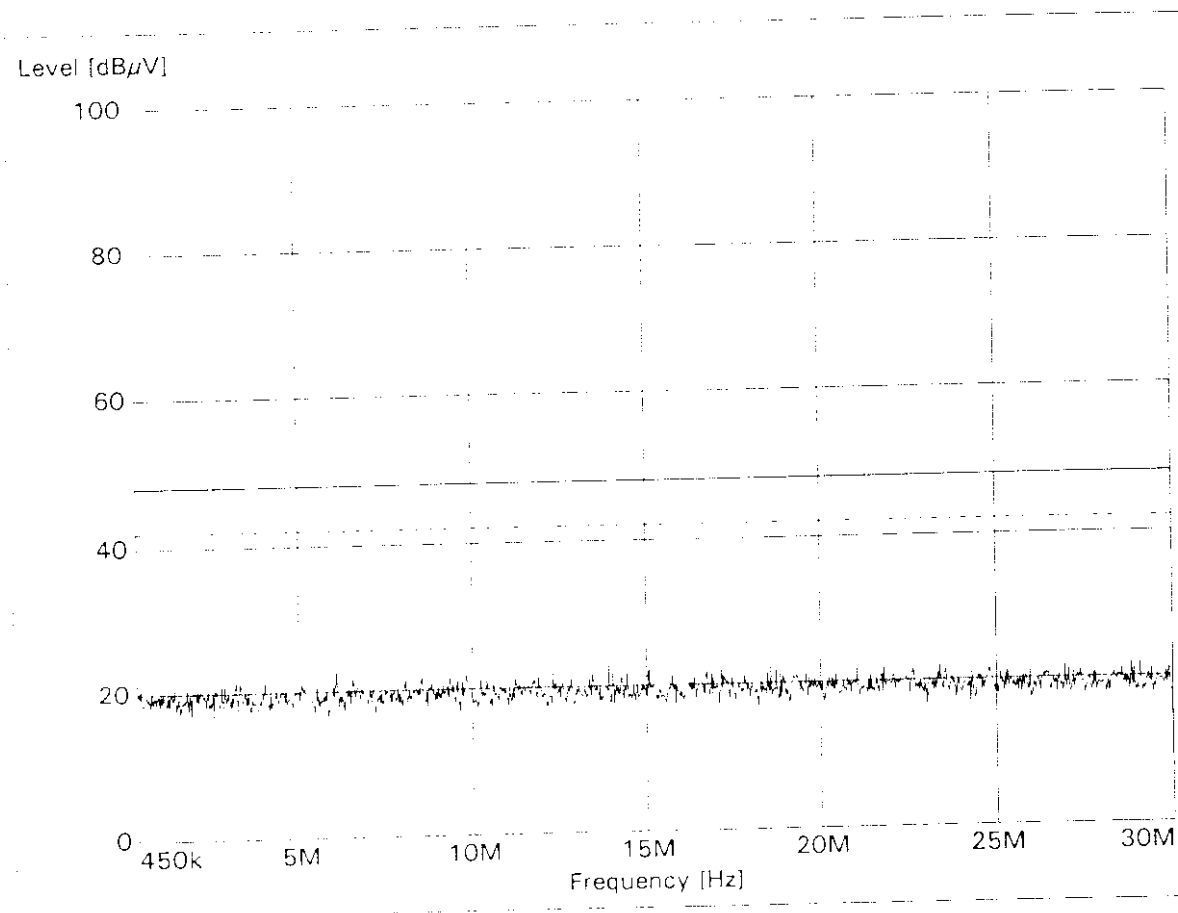
Technical specification : 15.107 (Revised as of October 1, 1991)

Limit

0.45 to 30 MHz

250 μ V / 47.96 dB μ V

Frequency : 202.350 / 210.750 MHz



REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : T88

Ambient temperature : 23°C

Relative humidity : 44.0%

RADIATED EMISSIONS

FCC Rule 47 Part 15

Technical specification : 15.111 , 15.109 (Revised as of October 1, 1991)

Receiver operating

SPURIOUS EMISSIONS LEVEL (dBm)								
178.800 / 183.600 MHz			192.200 / 208.200 MHz			202.350 / 210.750 MHz		
f (MHz)	Polarity (V/H)	Level (dBμV/ m)	f (MHz)	Polarity (V/H)	Level (dBμV/ m)	f (MHz)	Polarity (V/H)	Level (dBμV/ m)
106.25	H	24.6	60.66	H	22.5	111.59	H	26.1
106.25	V	< 20	60.66	V	23.8	111.59	V	< 20
161.20	H	29.3	121.38	H	26.5	117.2	H	< 20
161.20	V	25.3	121.38	V	26.5	117.2	V	33.4
484.26	H	34.0	181.59	H	29.8	166.95	H	26.6
484.26	V	< 20	181.59	V	30.3	166.95	V	< 20
			197.52	H	32.3	175.96	H	< 20
			197.52	V	30.1	175.96	V	27.3
			543.61	H	38.7	721.96	H	36.0
			543.61	V	< 20	721.96	V	< 20
Measurement uncertainty			± 3dB					

Bandwidth (kHz); this refers to the bandwidth of the measurement receiver

Limits

FCC Rule 74 Part 15

30 – 88 MHz	100 dBμV/m
88 – 216 MHz	150 dBμV/m
216 – 960 MHz	200 dBμV/m
above 960 MHz	500 dBμV/m

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
01	Spectrum Analyzer	8566 A	Hewlett-Packard	1925A00257
02	Analyzer Display	8566 A	Hewlett-Packard	1925A00860
03	Oscilloscope	7633	Tektronix	230054
04	Radio Analyzer	CMTA 54	Rohde & Schwarz	894 043/010
05	System Power Supply	6038 A	Hewlett-Packard	2848A07027
06	Signal Generator	8111 A	Hewlett-Packard	2215G00867
07	Signal Generator	8662 A	Hewlett-Packard	2224A01012
08	Funktionsgenerator	AFGU	Rohde & Schwarz	862 480/032
09	Regeltrenntrafo	MPL	Erfi	91350
10	Netznachbildung	NNLA 8120	Schwarzbeck	8120331
11	Relais-Matrix	PSU	Rohde & Schwarz	893 285/020
12	Power-Meter	436 A	Hewlett-Packard	2101A12378
13	Power-Sensor	8484 A	Hewlett-Packard	2237A10156
14	Power-Sensor	8482 A	Hewlett-Packard	2237A00616
15	Modulationsmeter	9008	Racal-Dana	2647
16	Frequenzzähler	5340 A	Hewlett-Packard	1532A03899
17	Absorber Schirmkabine	---	MWB	87400/002
18	Spectrum Analyzer	85660 B	Hewlett-Packard	2747A05306
19	Analyzer Display	85662 A	Hewlett-Packard	2816A16541
20	Quasi Peak Adapter	85650 A	Hewlett-Packard	2811A01131
21	RF-Preselector	85685 A	Hewlett-Packard	2833A00768
22	Biconical Antenne	3104	Emco	3758
23	Log. Per. Antenne	3146	Emco	2130
24	Double Ridge Horn	3115	Emco	3088
25	EMI-Testreceiver	ESAI	Rohde & Schwarz	863 180/013
26	EMI-Analyzer-Display	ESAI-D	Rohde & Schwarz	862 771/008
27	Biconical Antenne	HK 116	Rohde & Schwarz	888 945/013
28	Log. Per. Antenne	HL 223	Rohde & Schwarz	825 584/002
29	Relais-Switch-Unit	RSU	Rohde & Schwarz	375 339/002
30	Highpass	HM985955	FSY Microwave	001
31	Amplifier	P42-GA29	Tron-Tech	B 23602
32	Absorber Schirmkabine		Frankonia	
33	Steuerrechner	PSM 7	Rohde & Schwarz	834 621/004
34	EMI Test Receiver	ESMI	Rohde & Schwarz	827 063/010
35	EMI Test Receiver	Display	Rohde & Schwarz	829 808/010

TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
36	Controler	HD 100	Deisel	100/322/93
37	Relais Matrix	PSN	Rohde & Schwarz	829 065/003
38	Control Unit	GB 016 A2	Rohde & Schwarz	344 122/008
39	Relais Switch Unit	RSU	Rohde & Schwarz	316 790/001
40	Power Supply	6032A	Hewlett Packard	2846A04063
41	Spektrum Monitor	EZM	Rohde & Schwarz	883 720/006
42	Meßempfänger	ESH 3	Rohde & Schwarz	890 174/002
43	Meßempfänger	ESVP	Rohde & Schwarz	891 752/005
44	Biconi Ant. 20-300MHz	HK 116	Rohde & Schwarz	833 162/011
45	Logper Ant. 0.3-1 GHz	HL 223	Rohde & Schwarz	832 914/010
46	Amplifier 0.1-4 GHz	AFS4	Miteq Inc.	206461
47	Logper Ant. 1-18 GHz	HL 024 A2	Rohde & Schwarz	342 662/002
48	Polarisationsnetzwerk	HL 024 Z1	Rohde & Schwarz	341 570/002
49	Double Ridge G Horn Antenne 1-26.5 GHz	3115	EMCO	9107-3696
50	Microw. Sys. Amplifier 0.5- 26.5 GHz	8317A	Hewlett Packard	3123A00105
51	Steuerrechner	PSA 17	Rohde & Schwarz	883086/026
52	Analyzer	EZM	Rohde & Schwarz	883086/026
53	Receiver	ESH3	Rohde & Schwarz	881515/002
54	Relais Matrix	PSU	Rohde & Schwarz	882943/029
55	Art.mains network	ESH2Z5	Rohde & Schwarz	882394/007
56	Art.mains network	ESH3Z5	Rohde & Schwarz	861189/014
57	Art.mains network	ESH3Z5	Rohde & Schwarz	892475/017
58	Art.mains network	ESH3Z5	Rohde & Schwarz	894981/019
59	Art.mains network	ESH3Z6	Rohde & Schwarz	836501/652
60	Art.mains network	ESH3Z6	Rohde & Schwarz	861406/005
61	Art.mains network	ESH3Z6	Rohde & Schwarz	893689/012
62	Art.mains network	HFH2Z2	Rohde & Schwarz	881058/42
63	Power supply	6032A	Hewlett Packard	2818A-03449
64				
65				
66				
67				
68				
69				
70				